

## ENVIRONMENTAL PROTECTION AGENCY

Office of Enforcement

## CHAIN OF CUSTODY RECORD

REGION 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

PROJ. NO. 02AH26		PROJECT NAME Cheshire monitoring study				NO. OF CON- TAINERS	<div style="text-align: right;">Activity Code: 12345</div> <div style="text-align: center;"> <i>Analysate</i>  <i>Dataset #</i>  <i>20020033</i> </div>													
SAMPLERS: (Print Name and Sign) Mike murphy <i>Mike Murphy Mike Murphy</i>																				
STA. NO.	DATE	TIME	COM P	GR AB	STATION LOCATION															TAG NUMBERS
DO1	1/2	00:00	X		GHS	1														5-340127 1 to 1
SO1	1/2	00:00	X		GHS	1														5-340126 1 to 1
SO2	1/2	00:00	X		RVHS	1														5-340128 1 to 1
SO3	1/2	00:00	X		ADDAVILLE	1														5-340129 1 to 1
																				<i>GHS # 3012, Pstg Avg = 18.8</i>
																				<i>GHS # 3013, Pstg Avg = 18.75</i>
																				<i>RVHS # 3009, Pstg Avg = 18.25</i>
																				<i>Addaville # 3011, Pstg Avg = 18.55</i>
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			Ship To:												
<i>Mike Murphy</i>			01-02-02 14:19		<i>Ch' M. Yang</i>															
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			ATTN:												
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature)			Date / Time		Airbill Number										
					<i>Ch' M. Yang</i>			4/15/02 15:00												
																		Chain of Custody Seal Numbers		

5-140031

Project No.

02AH26

Project Name

Cheshire Monitoring Study

90101A

Lab arrival: 1-15-02

Due: 02-05-02

Dataset # 20020033

Sampler

Mike murphy

Cooler ID

1

Page

5-140031

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH26DO1	DO1	02/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340127 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH26SO1	SO1	02/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340126 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH26SO2	SO2	02/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340128 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH26SO3	SO3	02/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340129 1 to 1

Bottle No. 1

Parameter

PM10

## CENTRAL REGIONAL LABORATORY

### Data Checklist

Data Set AIR 20020033 Cheshire Monitoring Study  
TSP

- ☒ Chain-of-Custody
- ☒ Analysis Request Form(s)\*
- ☐ Sample Tags
- ☒ Transmittal Report w/signatures of the following:

- Analyst (s)
- Peer Reviewer
- Environmental Data Coordinator

\* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by:

Sylvia Griffin 1-24-02  
Data Management Coordinator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JAN 24 2002

Subject: Review of Region 5 Data for CHESHIRE MONITORING STUDY

From: Edgar Santiago, Chemist ES  
Region 5 Central Regional Laboratory

To:

ttached are the results for: CHESHIRE MONITORING STUDY

CRL data set number: 20020033

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: 2002AH26D01, 2002AH26S01, 2002AH26S02,  
and 2002AH26S03.



JAN 24 2002  
/ /

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Data Management Coordinator and Date Received

Date Transmitted: JAN/24/2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin  
Data Management Coordinator  
Region 5 Central Regional Laboratory  
ML-10C

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Received by and Date

Comments:

ENVIRONMENTAL PROTECTION AGENCY  
REGION V  
CENTRAL REGIONAL LABORATORY  
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 01/02/2002 LAB ARRIVAL DATE: 01/15/2002 DUE DATE: 02/05/2002  
DU NUMBER: 90101A DATA SET NUMBER: 20020033 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH26D01	GUIDING HANDS SCHOOL	0.0292			
2	2002AH26S01	GUIDING HANDS SCHOOL	0.0265			
3	2002AH26S02	RVHS	0.0353			
4	2002AH26S03	ADDAVILLE	0.0274			
DATE OF ANALYSIS			01/23-24/2002			
ANALYST			E.S.			

Reviewed by: FWO Date: 01/24/2002

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group		Page _ of _

### ATTACHMENT II

#### CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020033 Facility: CHESHIRE MONITORING STUDY  
 Parameter: SUSPENDED PARTICLES CRL SOP: AIG 047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: ES Peer Reviewer: FMA  
 Date: 1/24/2002 Date: 1/24/02  
 Comments Attached? (Y/N) N

<b>Data Set Number:</b>	<u>20020033</u>	<b>Parameter:</b>	<u>Suspended Particles</u>
<b>Facility Name:</b>	<u>CHESHIRE MONITORING STUDY</u>		
<b>Study Name:</b>	<u>CHESHIRE MONITORING STUDY</u>		
<b>Date of Narrative:</b>	<u>01/23/2002</u>	<b>Analyst:</b>	<u>ES</u>
		<b>Signature:</b>	<u>E.S.</u>

### ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on January 15, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6280097	2002AH26D01	5-340127
Q6280032	2002AH26S01	5-340126
Q6280098	2002AH26S02	5-340128
Q6280096	2002AH26S03	5-340129

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 01/23/2002 and was completed on 01/24/2002. All exposed filters were in good conditions.

### QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

### SAMPLE RESULTS:

All the sample results are acceptable for use.

### ELECTRONIC DATA:

No electronic data.

# CHESHIRE AIR MONITORING PROJECT

## PM10

Parameter: Suspended Particles

Data Set Numbers: 20020033, 20020034

Date of Analysis 01/23-24/2002

Analyst: ES

### BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/- 0.0005 g		
1.0000	1.0002	-0.0002
2.0000	2.0001	-0.0001
5.0000	4.9999	0.0001

### QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Analysis	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6280103	2002AH27S02	01/24/02	Analyst 1	4.3848
Q6280103	2002AH27S02	01/24/02	Analyst 2	4.3849
Differences (Limit +/- 5 mg).....				-0.0001
Q6280097	2002AH26D01	01/24/02	Analyst 1	4.4052
Q6280097	2002AH26D01	01/24/02	Analyst 2	4.4055
Differences (Limit +/- 5 mg).....				-0.0003

**CHESHIRE AIR MONITORING PROJECT**  
**PM10**

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M <sup>3</sup> )	of filters (g)	weight (g)	Gain	(UG/M <sup>3</sup> )
<b>Data set Number 20020033</b>											
Q6280097	2002AH26D01	01/02/02	Guiding Hands School	3013	18.75		0.00	4.3760	4.4052	0.0292	ERR
Q6280032	2002AH26S01	01/02/02	Guiding Hands School	3012	18.80		0.00	4.3853	4.4118	0.0265	ERR
G6280098	2002AH26S02	01/02/02	RVHS	3009	18.25		0.00	4.3514	4.3867	0.0353	ERR
Q6280096	2002AH26S03	01/02/02	Addaville	3011	18.55		0.00	4.3971	4.4245	0.0274	ERR

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M <sup>3</sup> )	of filters (g)	weight (g)	Gain	(UG/M <sup>3</sup> )
<b>Data set Number 20020034</b>											
Q6280100	2002AH27D01	01/08/02	Guiding Hands School	3013	18.45		0.00	4.3655	4.3846	0.0191	ERR
Q6280099	2002AH27S01	01/08/02	Guiding Hands School	3012	18.80		0.00	4.3532	4.3723	0.0191	ERR
G6280103	2002AH27S02	01/08/02	RVHS	3009	18.50		0.00	4.3702	4.3848	0.0146	ERR
Q6280101	2002AH27S03	01/08/02	Addaville	3011	18.55		0.00	4.3694	4.3889	0.0195	ERR

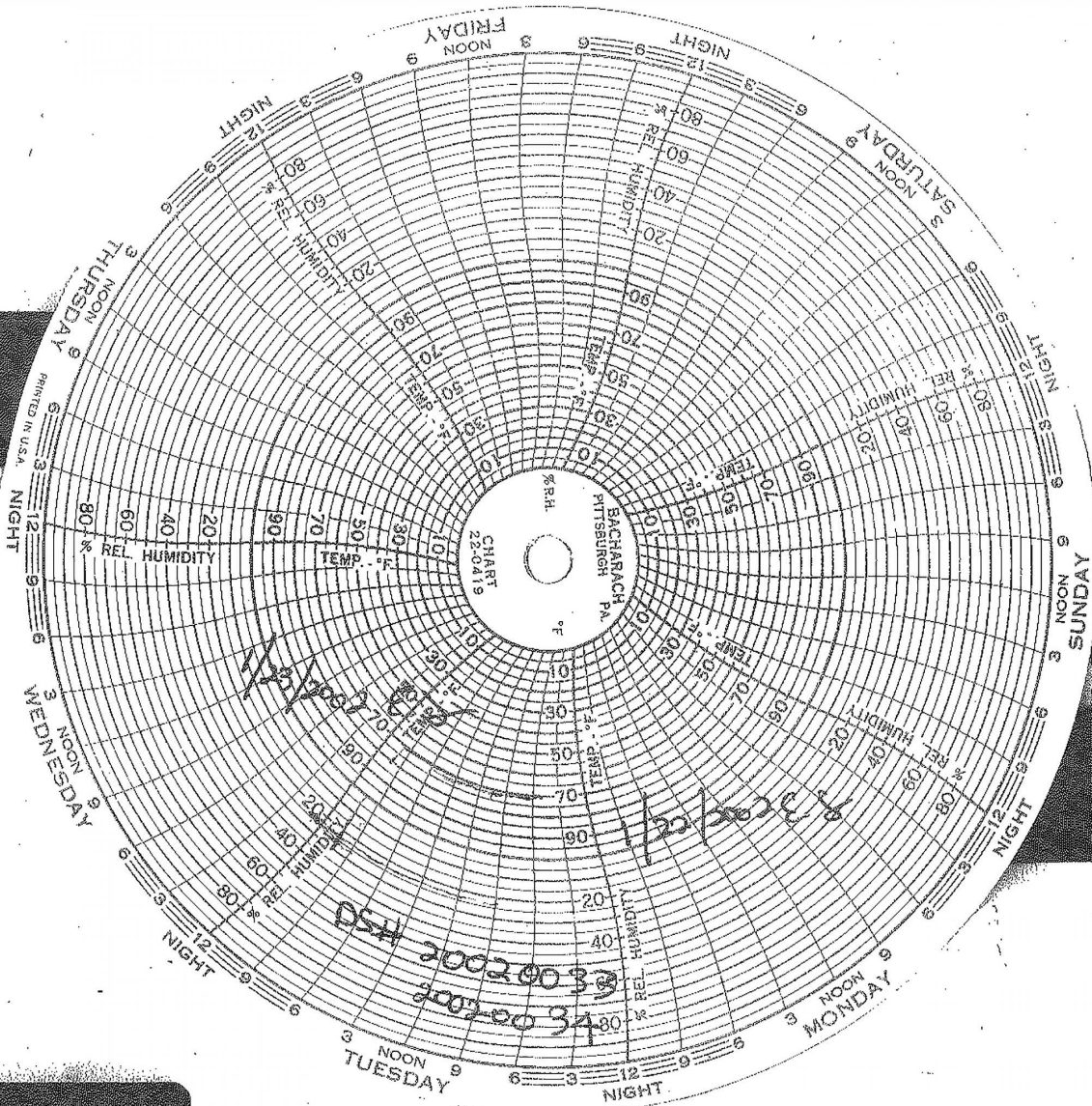
FILTER I.D.	TARE Wt. (g)	DUP Wt. (g)	EXPOSED Wt. (g)	EXPOSED Wt. DUP (g)	COMMENTS
Q6280116	4.3620		4.3800		
Q6280115	4.3648		4.3810		
Q6280114	4.3400		4.3570		
Q6280113	4.3739		4.3913		
Q6280112	4.3880		4.4100		
Q6280111	4.3609		4.3833	4.3835 <sup>FAA</sup>	
Q6280110	4.3518	4.3520 <sup>FAA</sup>			
Q6280109	4.3697				
Q6280108	4.3688				
Q6280106	4.3779				
Q6280107	4.3483				
Q6280105	4.3499				
Q6280103	4.3702		4.3848	4.3849 <sup>FAA</sup>	
Q6280104	4.3775	4.3780 <sup>FAA</sup>			
Q6280102	4.3347				
Q6280101	4.3694		4.3889		
Q6280100	4.3655		4.3846		
Q6280099	4.3532		4.3723		
Q6280098	4.3514		4.3867		
Q6280096	4.3971	4.4245	4.4245		
Q6280097	4.3760		4.4052	4.4055 <sup>FAA</sup>	
Q6280032	4.3853		4.4118		
Q6280029	4.3775				
Q6280028	4.3587	4.3586 <sup>FAA</sup>			

1/4/02 - 1/4/02

1/4/02 - 1/4/02

26







formation

Standard weights, actual (g)

Balanced weights, balanced (g)

SARTORIUS	(500+200 <sup>mg</sup> +200+100)	1.0000	1.0001
S/N 37010119		2.0000	2.0000
1/4/02 F.A		5.0000	4.9999

SARTORIUS	(500+200 <sup>(mg)</sup> +200+100)	1.0000	1.0002
S/N 37010119		2.0000	2.0000
1/10/02 E.S		5.0000	5.0001

SARTORIUS	(500+200 <sup>(mg)</sup> +200+100)	1.0000	1.0001
S/N 37010119		2.0000	1.9999
1/10/2002 E.S		5.0000	4.9999

SARTORIUS	(500+200 <sup>(mg)</sup> +200+100)	1.0000	1.0002
S/N 37010119		2.0000	2.0001
1/23/2001 E.S		5.0000	4.9999

[illegible]

Parameters PM10

Preservative None  
Sample ID 02AH26D01

Sampler Mike Murphy  
Date 1-02-02

PM-10 ✓ SAROAD \_\_\_\_\_ OPERATOR DEHA DATE 01-02-02

TSP \_\_\_\_\_ SITE CHS#3013 Q6780097

AVG. RECORDER RESP. 15.25 TEMP \_\_\_\_\_ °C \_\_\_\_\_ °K FINAL WT \_\_\_\_\_ g

ELAPSED TIME 1440 MINUTES PRESS \_\_\_\_\_ mmHg INITIAL WT \_\_\_\_\_ g

FLOW \_\_\_\_\_ ml/min TOTAL FLOW \_\_\_\_\_ m<sup>3</sup> SAMPLE WT \_\_\_\_\_ g

STD \_\_\_\_\_ ACTUAL \_\_\_\_\_ PM-10 \_\_\_\_\_ ug/m<sup>3</sup>

COMMENTS \_\_\_\_\_



[illegible]

5-340126-1

**5 M D B D**

Preservative None

Sample ID 02AH26501

sample Vile Muck

Date 1-02-02

**CONTRACTS**



THE UNIVERSITY OF CHICAGO PRESS



THE

TOTAL 100%



COPIES



# EXPOSED TIME

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# NO BORDER RESISTANCE

1997



STEELE  
3100 1/2 Ave. S.E.  
30132



# SARNOX

# OPERATOR OVERLOADING





Parameters PM10

Preservative None  
Sample ID 02AH26S02  
Sampler Mike Muench  
Date 1-02-02



# STANDARD OLMA

**Partnerships**

Sample ID: 0217100

Wife Mary

DATE 1-22-22

DATE



100